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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/783,995	02/20/2004	Robert S. Whitehouse	14074-014001	4368
26161	7590	07/12/2007	EXAMINER	
FISH & RICHARDSON PC P.O. BOX 1022 MINNEAPOLIS, MN 55440-1022			RONESI, VICKEY M	
ART UNIT		PAPER NUMBER		
1714				
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	Application No.	Applicant(s)
	10/783,995	WHITEHOUSE, ROBERT S.
	Examiner Vickey Ronesi	Art Unit 1714

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 03 May 2007.
- 2a) This action is FINAL.                            2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-7,9,11,13-29,36-49 and 52-82 is/are pending in the application.
  - 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-7,9,11,13-29,36-49 and 52-82 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) All    b) Some \* c) None of:
    1. Certified copies of the priority documents have been received.
    2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) Notice of Informal Patent Application
- 6) Other: \_\_\_\_\_

**DETAILED ACTION**

1. The outstanding claim objection is withdrawn in light of applicant's amendment filed on 5/3/2007.
2. The outstanding prior art rejections over Lee et al and Noda et al are withdrawn in light of applicant's amendment and arguments filed on 5/3/2007.
3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior office action.
4. The new grounds of rejection set forth below are necessitated by applicant's amendment filed on 5/3/2007. In particular, the claims have been amended so that the second PHA contains a 4- or 5-hydroxyalkanoate. Thus, the following action is properly made final.

***Claim Rejections - 35 USC § 102/103***

5. Claims 1-7, 11, 13-21, 25, 36, 38, 39, 44, 45, 52-56, 59-69, 71-75, 77, 79, and 80 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Gross et al (WO 97/07153).

Gross et al discloses a blend comprising (page 5, lines 12-26; page 18, line 33 to page 26, line 3; page 36, line 21 to page 37, line 5) at least 30 wt % of a copolymer of 3-hydroxybutyrate (i.e., first PHA) and a copolymer of 4-hydroxybutyrate having a Mn of 37,400 (page 19, line 33). Gross et al exemplifies a blend of a copolymer of 72% 3-hydroxybutyrate and 28% 4-hydroxybutyrate and a copolymer of 10% 3-hydroxybutyrate and 90% 4-hydroxybutyrate (page 25, lines 26-28), wherein the difference in glass temperature is 27°C (page 24, Table III, 4-AS).

Gross et al does not expressly disclose the Hansen solubility of its PHAs, nevertheless, given that the copolymers of Gross et al are the same utilized in the present invention, they would therefore inherently exhibit the presently claimed property since a material and its properties are inseparable. Moreover, while Gross et al does not disclose the properties of its blend composition such as deformation angle tolerance, stiffness, and peel bond strength, these properties are considered to be inherent given that Gross et al teaches that beneficial mechanical properties are obtained (col. 1, line 16) and further given that Gross et al discloses the presently claimed ingredients in the blend composition. Case law holds that a material and its properties are inseparable. *In re Spada*, 911 F.2d 705, 709, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990).

In light of the above, it is clear that Gross et al anticipates the presently cited claims.

Alternatively, the presently claimed properties would have obviously been present given that Gross et al discloses the polymer and blends as presently claimed.

#### ***Claim Rejections - 35 USC § 103***

6. Claims 1-7, 9, 11, 13-49, and 52-82 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hammond (US 5,646,217).

Hammond discloses a polymer composition comprising a first polyester component containing PHA which is either a homo- or copolymer containing more than 2 monomers (col. 1, lines 32-55) and a second polyester component containing a similar or different PHA from the first PHA (col. 2, lines 13-47), wherein each component is present in a preferred amount of 20-80 wt % by weight of the composition (col. 3, lines 6-10). The PHAs are of (co)polymers of formula 1,  $-\text{O}-\text{C}_m\text{H}_n-\text{CO}-$ , wherein m is preferably 3 or 4 (i.e., 3- or 4-hydroxyalkanoates)

and can be terpolymers (col. 1, lines 35-55) and have a molecular weight ( $M_w$ ) of at least 50,000 (col. 1, lines 46-49). The polyester components are either compatibilized (i.e., miscible or partially miscible) (col. 5, lines 19-28) or not compatibilized (i.e., immiscible) (col. 3, line 66-67). Hansen teaches that beneficial mechanical properties are obtained (col. 3, lines 60-61).

While Hammond does not exemplify a PHA polymer containing comonomers other than 3-hydroxybutyrate and 3-valerate, Hammond teaches in Formula I the use of a multitude of PHAs in its blend. It is therefore considered that it would have been obvious to one of ordinary skill in the art to utilize any of the polymers taught by Hammon in a blend, thereby intrinsically obtaining the polymeric and blend properties like presently claimed.

With respect to claims 38-43 and 75-77, Hammond teaches that the PHAs having a molecular weight ( $M_w$ ) of at least 50,000 (col. 1, lines 47-48), however it fails to disclose different  $M_w$  for each of the PHAs. Nevertheless, it is not examiner's position that the molecular weights are *prima facie* obvious, absent a showing of criticality for the molecular weight. Case law holds that if there is no evidence in the record pointing to any critical significance in a claimed molecular weight then the claims are not patentable over the prior art. *In re Hoeschele*, 406 F.2d 1403, 160 USPQ 809 (CCPA 1969). Should applicant argue criticality of molecular weight, it will be noted that applicant's examples do not indicate or suggest a critical molecular weight. Such data has little to no probative value.

***Response to Arguments***

7. Applicant's arguments filed 5/3/2007 have been fully considered but they are not persuasive. Specifically, applicant argues that Hammond et al fails to disclose with sufficient specificity the presently claimed copolymers.

In response, Hammond et al discloses a formula 1 as the polyhydroxalkanoates in a blend, wherein this formula is sufficiently limited such that one of ordinary skill in the art is able to "at once envisage" the specific compound within the generic chemical formula (MPEP § 2131.02). It is settled in case law that the compound is disclosed. *In re Petering*, 301 F.2d 676, 133 USPQ 275 (CCPA 1962). While Hammond et al does not exemplify blends with 4-hydroxyalkanoates, it is perfectly proper for the examiner to look to the whole reference for what it teaches rather than merely rely on preferred embodiments. *In re Courtright* 153 USPQ 735 (CCPA 1967).

***Conclusion***

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

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CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vickey Ronesi whose telephone number is (571) 272-2701. The examiner can normally be reached on Monday - Friday, 8:30 a.m. - 5:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on (571) 272-1119. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

7/5/2007  
Vickey Ronesi

*VR*

Vasu Jagannathan  
Supervisory Patent Examiner  
Technology Center 1700